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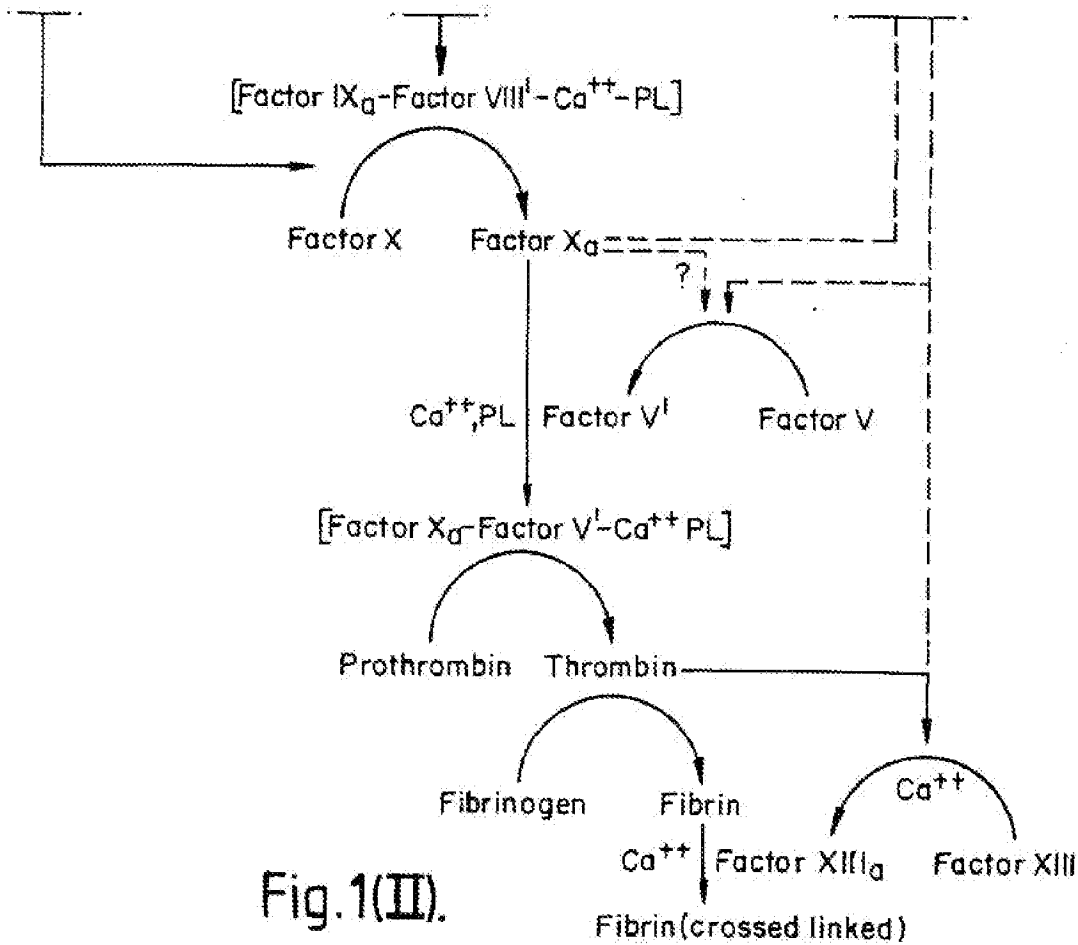


Fig. 2a.

1 CTGCGACATCTCTGTGGCCGCCAGGGCGCCTTCAGCCCAACTTCCAGCCGCACAGCCGCGCACAGGACACCGCTCGATCTGCGCGCAACTGATAGAC
GACGGTAGGAGGACACCGACGGGTCCCGCGGAAATWGGGTGGAGGGTGCGGAGTGCACCGGTGCCCTTGGCGGACGAGCGCGGTGGACCATCTG

100 ATG GAG ACC CCT GCC TGG CCC CGG CTC CGC CCG GAG ACC GCC GTC CGG AGC CTC CTC CTC GGC TGG CTC
-32 TAC CTC TGG GGA CGG ACC GGG GCG CAQ GEC GGG CTC CGG CAG CGA GGC TGC GAG GAC GAG CCG ACC CAG CAG
Met Glu Thr Pro Ala Trp Pro Arg Val Pro Arg Val Pro Arg Val Ala Val Ala Arg Thr Leu Leu Gly Trp Val

175 TTC GCC CAG GTG GCC GCG GCT TCA GGC ACT AAA AAT AAT GTG GGA GCA TAT AAT TTA ACT TGG AAA TCA ACT AAT
-7 Phe Ala Gln Val Ala Gly Ala Ser Gly Thr Thr Asn Thr Val Val Ala Tyr Asn Leu Thr Trp Lys Ser Thr Asn

250 TTC BAG ACA ATT TTG GAG TGG GAR CCC AAA CCC GTC AAT AAT GTC TAC ACT GTT CAA ATA AGC ACT AAG TCA GGA
AAG TTC TGT TAA AAC CTC ACC CTT GGG TTT GGG CAG TTA GTT CAG ATG TGA CRA GTT TAT TCG TGA TTC AGT CCT
Phe Lys Thr Ile Leu Cys Trp Glu Trp Lys Pro Val Asn Gln Val Tyr Thr Val Gln Ile Ser Thr Lys Ser Gly

325 GAT TGG AAA AGC AAA TGC TTT TAC ACA ACA ACA GAG TGT GAC CTC ACC GAG CAT ATT GTG AAG GAT GTG AAG
CTA ACC TTT TCG TTT AAG AAA ATG TGT TGT CTC TGT CTC CAG TGG CTC TAT TAA CAG TTC CTA CAC TTC
Asp Trp Lys Ser Lys Cys Phe Tyr Thr Thr Asp Thr Glu Cys Asp Leu Thr Asp Glu Ile Val Lys Asp Val Lys

400 CAG AAG TAC TTG GCA GGG GTC TTC TCC TAC CCG GCA GGJ AAT GTG GAG AGC ACC GGT TCT CCT GGS GAG COT CTC
GTC TGC ATG AAC CGT GCC CAG AAG AGG ATG SCC COT CCC TTA CAC CTC TCG TGG CCA AGR CGA CCC CTC GGA GAC
69 Gln Thr Tyr Leu Ala Arg Val Phe Ser Tyr Pro Ala Gly Asn Val Glu Ser Thr Gly Ser Ala Gly Glu Pro Leu

475 TAT GAG AAC TCC CCA CAG TTC ACA CCT CTC GAG AAC CAG CTC GGA CAG CCG CTC GAT ATT CAG ACT TTT GAA CAG
ATA CTC TGC AAG GGT CTC AAG TGT GGA ATG GAC CTC TCT TTG GAG CCG COT GAT TAA GTC TCA AAA CTT GTC
94 Tyr Glu Asn Ser Pro Glu Phe Thr Pro Tyr Leu Glu Thr Asn Leu Gly Gln Pro Tyr Asn Ser Phe Glu Gln

550 GTG GGA ACA AAA GTG AAT GTC ACC GTA GAA GAT GAA CGG ACT TTA GTC AGA AAG AAC ACT TTC CTA AGC CTC
CAG CAG CCT TGT TTT CAC ATA CAC TGG CAT CTT CTA CTT GCC TGA AAT CAG TCT TCC TTG TGA AAG GAT TCG CAG
119 Val Gly Thr Lys Val Asn Val Thr Val Glu Asp Glu Arg Thr Leu Val Arg Arg Asn Thr Phe Leu Ser Leu

625 CGG GAT CTT TTT GGC CAG TTA NTT TAT ACA CTT TAT TAT TGG AAA TCT TCA ACT TCA GGA AAC AAA ACA CCC
GCC CTA CAA AAA CCG TTC CAG AAT TAA ATA TGT GAA ATA ATA ACC TTT AGR AGT TCA AGT COT TTC TTT TGT CGG
144 Arg Asp Val Phe Gly Lys Asp Leu Ile Tyr Thr Leu Tyr Tyr Lys Ser Ser Ser Ser Val Gln Ala Val Ile

700 AAA ACA AAC ACT AAT GAG TTT TTS ATT GAT GTG GAT AAA GGA GAA AAC TAC TGT TTC AGT GTT CAA GTC ATT
TTT TGT TTG TGA TTA CTC AAA AAC TAA CTA CAC CTA TTT COT CTT TTG ATG ACA AAG TCA CAA GTT COT CAC TAA
169 Lys Thr Asn Thr Asn Glu Phe Leu Ile Asp Val Asp Gly Glu Asn Tyr Cys Phe Ser Val Gln Ala Val Ile

775 CCC TCC CGA ACA GTT AAC CCG AAG AGT AAA GAC AGC GGC GTA CAG TGT ATG GGC CAG AAA GGG GAA TTC AGA
GGG AGG GCT TGT CAA TTG GCC TTC TCA TGT CTG TCG GCG CAT CTC ACA TAC CCG GTC CTT CCC CTT AAG TCT
194 Pro Ser Arg Thr Val Asn Arg Lys Ser Thr Asp Ser Pro Val Glu Cys Met Gly Gln Cys Thr Val Gln Phe Arg

850 GAA ATA TTC TAC ATC ATT GGA COT GTG GTA TTT GTG GTC ATC CTT GTC ATC ATC CTC GCT ATA TCT CTA CAC
CTT TAT AAG ATG TAG TAA COT CGA CAC CAT AAA CAC CAG TAG TAC GAA CAG TAG TAG CCG GAT TAT AGA GAT CTC
219 Glu Ile Phe Tyr Ile Ile Gly Ala Val Val Phe Val Val Ile Ile Leu Val Ile Ile Leu Ala Ile Ser Leu His

925 AAG TGT AGA AAG GCA GGA GTG GGG CAG AAG TGG ARG GAG AAC TCC CCA CTC AAT CTT TCA TAA AGGAGCACTGTGG
TTC ACA TCT TTC COT CCT CAC CCC CTC TCG ACC TTT CTC CTC TGC GGT TTA CAA AAT TTT TCCTCGACACACC

244 Lys Cys Arg Lys Ala Gly Val Gly Gln Ser Trp Lys Glu Asn Ser Pro Leu Asn Val Ser QC

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1003 AGCTACTGCAAAATGCTATATATGCACTGTGACCGAGAACTTTTARGAGGATAGAAACATGGAACCAAAATGACTATTTTCGAGCAATGAAACCTTGGAG
TCGATGACGTTTACGATATATACCTGACACTGGCGCTTGAATTTCTCTATCTTATGACTTGGCTTTACATATAAGCTCTGACTTCTGACCTC
1103 TTCAAAAACCTCTTGATATGACCTCTTATTACCAATAGCAATCTCTGTTTACATCAGCAATGACTTGAATGTAAGCAATGCTACTACACCAAT
AAGTTTTTTCAGAACTATCTGGACAATAATGTAATCGTAAGACCAAAACCTGATGCTGATCACTGAAACCTTACATCTGCTTACCATGATGTTGGTTA
1203 TCCAACTTTTAATTTTAACACCAATCGCACCTTTTGCACATACACCTTTAGATATATANTCCCACTCAAGCACTAACCAAGTCTCTCCCAAGCAAAA
AGCTTCAAAATTTAAAATTTGTTGGTACCTGTGAAACCGTGTATTTGTACGAAATCTAATATATATAAGGCTGAGTTCTCATTTGGTCCACAGGTTCTGTTT
1303 CAATGGGAAATGCTCTTAAAAAATCTGCTGGTGCACCTTTTCAAAAGCTTTTCTTTTCTTTTGTGAGACGAGTCTTCTCTGTTGCCAGGCTGGA
GTTTACCTTTTACAGAAATTTTTAGBACCCCTGTAACCTTTTCGAAAAAATTTTCAAAAAAATTTTCTGCTCAGAACGAGACAGGGTCCGACCT
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TGGTGTGGTTTCGATTAAAAACATAAAAATCATCTCTACCCCAAGTGGTAGAACCGGTCCGACCGAGCTTAAGGACTGGAGTCAACTAGTGGCTGGA
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ACCGAGGGTTTCACGATCATATATACCCGCACTTGGTGTACGGCTCGGCTTTTTCGAAACTCCCGGACTGAAAGTTAGGTACATCTCTTTCATTTTACCTT
1703 GGAAATGGGTCCATTCTCAGGACTTTCTAACATATGCTATATATAGTCTTTTGTAGTCTTTTCTTTTTCAGGAATACATTTCGAAATTCGAAACAT
CCTTAAACCCACCTAAAGATCTGAAAGATTTGTATACAGATATATATACAAATCCAGAAATGAGTCCCTTAAGTAAGCTTTTAACTTTTGTGTA
1803 TGGCAAACTTTGTATTATGTTAACTGCAGGAGACATTTGGTATTTCTGCACTTCTTCAATATGCTTTTAACTGACCTTAAGTAACTGACCT
ACCGTTGAAACATATTTACACAAATCTCGTAACCTAAGACCCGTGGAAGATATACGAAATTTAGAGCTGAAATGACTGATTCACCG
1903 ATTAACATTTGAGAGCTAACTATATTTTATAAGACTACTATACAACTCAGAGCTTATGATTTAAGTACTTAAAGCTTCTATGTTGATGATTTGAT
TAATTTGTAACCTCTCGATTGATATAAAATTTCTCGATGATATGTTTGTATGCTCAATACTAAATTTCCATGATTTCCAGAGATACCACTGTAACATA
2003 ATATANTTTTAAAGGTTTCTATATATGCGGATTTCTATTTATATGATGATATTTGTTCTATTTGATATATATGAGATATATTTTAAATATATCTTT
TATATTAAAAAATTTTCCAAAGATATATACCTTAAAGATAAATACATTCATTATACAGATTAATACATATATATCTTATTAATAAATATATATGANA
2103 AATATAAGCTGACTGGGAATGTGTA
TTTATTTCACCTGACCTTAACAAAT
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Fig. 2b.

Fig. 3a.

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Fig. 3b.

601 AGGACACACA CTTTCCTAAG CTTCCGGGAT GTTWTGGCA AGCACTAAT TTATACACTT TATATATGGA AATCTTCACG TTCAGGAAAG AAACAGCCCA
 TCCCTGTCTT GAAAGGATTC CAGAGGCCCA CAAAAACCTT TCTTGAATTA AATCTCGA ATATACACTT TTGAAGTTC AACTCTTTC TTTCGTGGT

701 AAACAACAC ATATGACTTT TTGATGTAT TGGATAAAG AGAAACTAC TGTTCATG TTCAAGCAGT GATTCCTCC CCAAGCACTTA ACCGGAAGAG
 TTTGTTTCTG ATACTCAAA AACTAATCTAC ACCTATTCC TCTTTGATG ACAAAGTAC AAGTTCTCA CTAAGGGAGG GCTTGCAAT TGGCCTCTC

801 TACAGACAGC CCGGTAGAGT GTATGGGCCA GGAGAAAGCG GAATCAGAG AATATCTTA CATCATTTGA GCTTGGTAT TTCTGTTCAT CATCTTCTC
 ATGCTCTCTG GCCCATCTCA CATACCCCGT CCHCTTCCC CTTAAGTCTC TTATATAGAT GTAGTAACCT CGACACCATA AACACCACTA GTAGGACAG

901 ATCATCTCTG CTATCTCT CTACAGCTT ACACAGCTT AGAAGSCAG GAGTGGGGCA GAGCTGGAG GAGAACTCCC CACTCAATGT TTCATAAGG AAGLACTCTT
 TATAGGACC CATATAGAGA TGCTTCTACA TCTTCTGCTC CTCACCTCCG CTGACCTTC CTCTGAGGG GTCACTTACA AAGTATTTCC TTCTGTGACA

1001 GGAGCACTG CAATGCTAT ATGCACTGT CACCGAGAAC TTCTAGAGG ATGATPACA TGGAAACCA ATGAGTAT TTCTGAGCATG AAGACCTCTG
 CCTCGATGAC GTTACCGATA TACCGTGACA CTGGCTCTTG AAAATCTCC TATCTTATGT ACCTTTCTCT TTAATCATAA AGCTCTCTAC TTCTGGGAGC

1101 AGTCAAAA ACTCTTGATA TGACCTCTTA TTACCATTAG CATCTGCTT TTGACATCAG CATTAGTCACT TTGCAATGT AAGCAATGGT ACTACAACCA
 TCAAGCTTTT TGAGAACTAT AETGACAAT AATGTAATC GTAAGACCA AACTCTACTC CTATCACTG AAACCTTACA TTGCTTACA TGATCTCTCT

1201 ATTCACAGTT TTAATTTTA ACACCATGGG ACCTTTTGA CATACATGG TTTAGATTAT ATATTCGCA CTCACAGAGT AACCAAGGTC TTCACAGCAA
 TAAGGTCAA AATTAATAT TCTGGTACCG TGGAAACCT GTATTGACG AATCTATA TATAAGGCT GAGTTCTCA TTGCTCCAGC AGGTCTCTT

1301 AACCAATGG AATATGCTT AAAAATCTT GGTGCACTT TGGAAGCT TTTTCTTTT TTTTCTTTT AGACCGAGTC TTGCTCTCTT GCCCAGGCTG
 TTGTTACCC TTTTACAA TTTTGTAGA CCACTCTGA ACTTTTGA AAAAAAAA AAAAAAATC TCTGCTCTCAG AACCAGACAA CCGGTCTCTG

1401 GAGTGCAGTA GCACGATCTC GGCTCACTGC ACCCTCCCTC TCTCGGTTT AAGCAATGT CTGCTCTCAG CTCCTGAGTA GTTGGGATTA CAGTCTCTG
 CTCACCTAT CCGCTCTAG CCGATGAGC TGGGAGGCGAG AAGGCCAAG TTCTGTACA GACCGACTC GAGGCTCTAT CACCTCTAT GTCCACGCT

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Fig. 3c

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scrPI    sau3AI
bsrNI    mnlI    styI
haeIII   dpaI
hael      ddel
eaeI      mnlI
baI       dpaI
bphI      ddel
          mnlI
          dpaI
          styI
1501 CTACCACACC AGCTAAATTT TTCTATTTT TACTAGAGAT GGGTTTTCAC CATCTTGCC AGCTGGTCT TGAATTCCTG ACCTCAGTTG ATCCACCCAC
    GATGGGTGG TTGCTTTAAA AACATAAAA ATCATCTCTA CCCCACACTG GTASACCGG TCCACCCAGA ACTTAAGGAC TCGACTCACC TAGGTGGTG
    mnlI
    haeIII
    haeI
1601 CTGGGCTCC CAAGTGCTA GTATTATGGG CCGGAACAC CATGCCACG CGAAAGCTT TTGAGGGGCT GACTTCATC CATCTAGGAA AGTAAATAG
    GACCGGAGG GTTTCACGAT CATAATACCC GCACCTGGTG GTACGGGTCT GCTTTTCGA AACTCCCGCA CTGAAGTTAG GTACATCTCT TCATTTTACC
    aluI
    haeIII
    haeI
1701 AAGGAATTC GGTGCATTC TAGGACTTT CTACCATATG TCTATATAT ACTGTTTACG TCTTTTCTT TTCAGGAAT ACATTTGGA ATTCAAAACA
    TTCCTTAAC CCACCTAAG ATCCCTAAG GATTGTATAC AGTATATATA TCACAAATCC AAGAAATAA AAGTCCCTA TTTAAACCTT TAGTTTCTT
    nlaIV
    bsrI
    haeIII
1801 ATTGGCAAC TTGTATATA TGTGTAACT CCAGCAGACA TTGGTATCT GGCACCTTC CTATATATCT TTACATCTG CACTTTACT GACTTAAGTG
    TAACCGTTG AACATAATT ACACATICA CCGCTCTGT AACCATAGA CCGGTGGAG GATTATAGA AATGTTAGC ATGAAATTC CTGATTTAC
    aluI
    haeIII
    haeI
1901 GCTTAAACA TTGTAGAGCT AACATAATT TTATAAGCT ACTATAGAA CACACAGCT TATGATTTAT GGTTCATTA GGTTCATTA GGTTCATTA
    CCAATTTGT AACCTCTCA TTGATATAA ATATATCTGA TGATACTTT GATCTCTCA ATACTAATY CCAATTAAT CCAAGATACC AACTGTACA
    draI
    haeIII
    haeI
2001 ATATATAAT TTGTAAAAG GTTTCATTA TCGGCTTATA TCGGCTTATA GGTTCATTA AGGATATAT TCCATTTAT TATATATGA GATTAATTA TTAATATAT
    TATATATAA AATATTTTC CAAAGATAT ACCCTAATA GATAATACA TCCATTTAT CCAAGATACA ATATATAAT TATATATAA AATATATGA
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2101 TTAAATAAG GTGACTGGGA ATTCTTA
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Fig. 4.

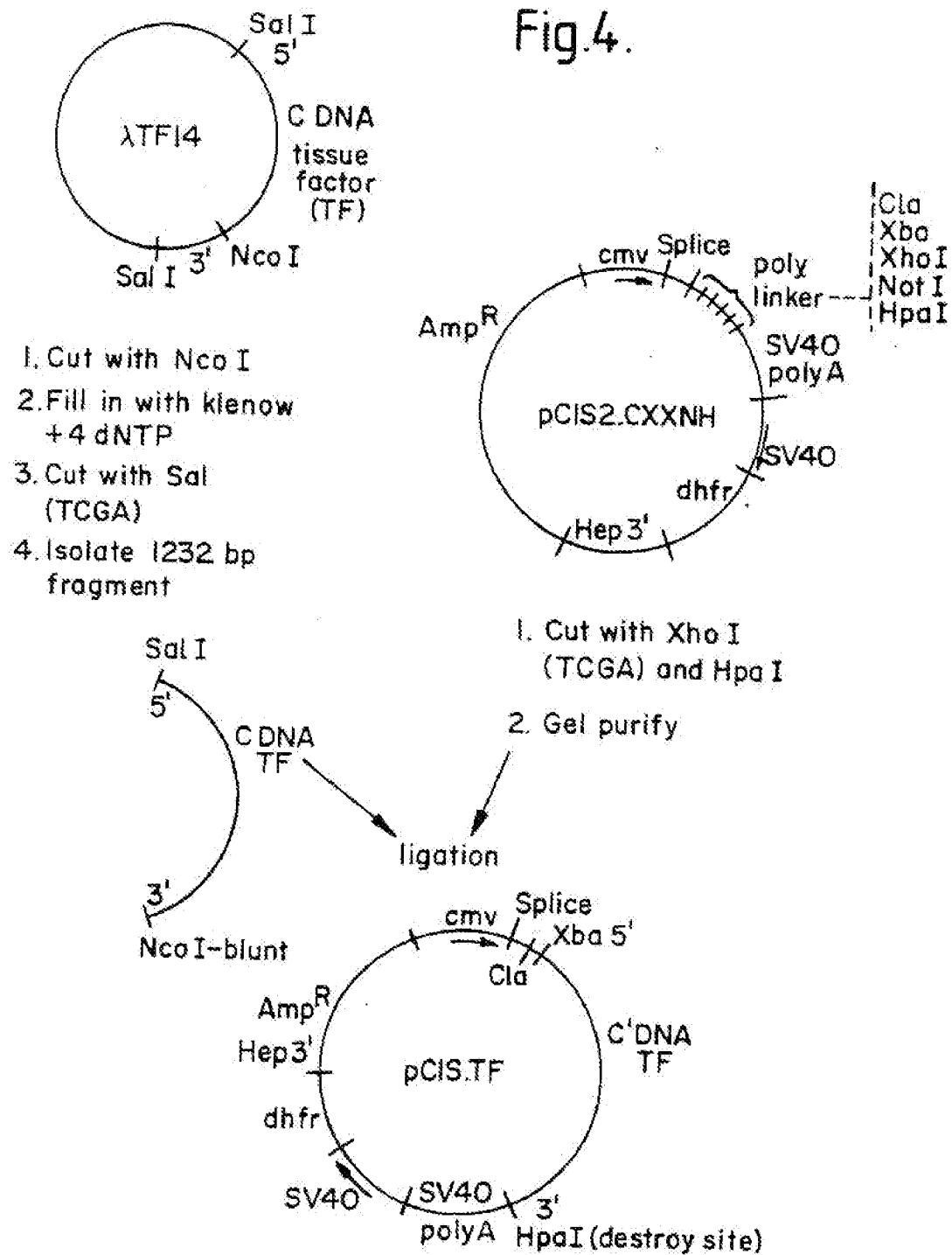


Fig. 5.

